Claim 12, line 2, change "1" to --17--.

Claim 13, line 4, change "1" to --17--.

REMARKS

Most of the original claims have been cancelled and a new set of claims has been supplied which define the invention in greatly restricted form. Specifically, generic claim 17 now requires the side chain to be connected to positions 6 and 7 of the generic formula, and substituents R_5, R_8 and R_9 are limited to hydrogen and alkyl groups having up to 8 carbon atoms. All of the other claims are directly or indirectly dependent on claim 17 and supply additional limitations which further narrow the scope thereof.

It will be seen that the generic formula of claim 17 narrowly defines compounds such as those of claims 22 and 23 (equivalent to original claims 15 and 16), which have been indicated as allowable.

The new claims are believed to be free of any basis for rejection under 35 U.S.C. §112, paragraphs 1 and 2, on which the original claims were rejected. The rejection based on insufficient identification of starting materials wherein R_5-R_8 are hydroxy, mixed alkoxy, or amino is not applicable to the new claims, since such substituents are not included within the scope thereof.

Similarly, the prior rejection of the claims as "lacking reasonable assurance as to how to use" is also not applicable to the new claims. The new genus is restricted to compounds similar to those of claims 15 and 16, as to which utility has been conceded by the Examiner. If the Examiner contends that only those specific compounds which have been actually tested can be claimed, the rejection is respectfully

traversed as improper and unsupported. There is nothing unobvious or unusual in the specific manner of using the compounds of the present invention, particularly in view of other closely related compounds having similar utility which are well known to those skilled in the art, such as those disclosed in Hall, et al., U.S. 3,959,289 and Connor et al., U.S. 4,117,134, references cited in the parent application Serial No. 946,492.

To the extent that the rejection of the original claims under 35 U.S.C. §103 as unpatentable over Albrecht, Yamanouchi and Connor is considered applicable to the claims in the present case, the rejection is respectfully traversed. It is submitted that Hall patent 3,959,289, cited in the parent application, remains the closest prior art pertinent to the present invention. Hall discloses a class of compounds which is almost identical to that now claimed, the sole distinction being that whereas Hall's compounds have 2 fused rings, both of which contain heterocyclic N atoms, the rings in the compounds of the present invention have one heterocyclic N and one heterocyclic O, respectively. By contrast, the compounds disclosed by both Albrecht and Yamanouchi differ in certain material respects which render them less pertinent to the present invention than are the compounds disclosed by Hall. Specifically, the compounds in the Albrecht and Yamanouchi references have only one carboxyl group whereas the present invention requires two, and the single carboxyl group is in the 3-position relative to the heterocyclic N-atom rather than the 2-position as in the present invention. While Yamanouchi shows fused rings containing 6 members, Albrecht shows 1 ring containing only 5 members. The obvious deficiencies of the principal references are not supplied by Conner et al., which shows two <u>adjacent</u> heterocyclic rings, rather than two hetero-

cyclic rings separated by a third ring as in the present case. Further, in Connor there is only a single carboxylic acid group which is in the 3-position relative to the heterocyclic nitrogen rather than the 2-position as in the present case.

Clearly, as conceded by the Examiner during the prosecution of the parent application, Hall 3,959,289 is the most pertinent reference, and as to this reference a comparative showing of unexpected results was made in the parent application. Enclosed herewith for the convenience of the Examiner is a copy of the declaration of Dr. Raymond Keogh, the original of which was filed in the parent application. Dr. Keogh's declaration describes a comparative test employing a typical compound of the present application, i.e., disodium 4,6-dioxo-10-propyl-4H,6H-pyrano-[3,2-g]quinoline-2,8-dicarboxylate, and the compound taught in Example 3 of Hall, i.e., disodium 1,4,6,9-tetrahydro-10-methyl-4,6-dioxypyrido[3,2-g]quinoline-2,8-dicarboxylate. Other than the identity of the alkyl substituents (propyl v. methyl), the only difference between these compounds is that Hall's compound has two fused rings both containing a heterocyclic N-atom, whereas the compound of the present invention has one heterocyclic N-atom and one heterocyclic O-atom.

As shown by the results reported in Dr. Keogh's declaration, the compound of the present invention had an inhibition dose (ID_{50}) of 0.02 mg/kg, whereas the compound of Hall had an ID_{50} of 0.056 mg/kg. Accordingly, the dosage of the compound of the present invention required to produce equivalent results was only 35% of that required by the compound of Hall. In other words, the herein claimed compound was almost three times as effective on equal weight basis as Hall's compound.

It is submitted that the comparative data submitted herewith clearly establish the unobvious superiority of the class of compounds now generically claimed over the closest reference, Hall. Accordingly, the prima facie case of obviousness established by the cited references and Hall has been effectively rebutted.

Reconsideration and allowance of the application are respectfully requested.

Respectfully submitted,

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